ICF CONSULTING

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MEMORANDUM

TO: Chris Lichens, Remedial Project Manager
Site Cleanup Section 4, SFD-7-4

THROUGH: Rose Fong, ESAT Task Order Manager (TOM)
Quality Assurance (QA) Program, MTS-3

FROM: Doug Lindelof, Data Review Task Manager
Region 9 Environmental Services Assistance Team (ESAT)

ESAT Contract No.: EP-W-06-041
Technical Direction Form No.: 00105001

DATE: June 30, 2006

SUBJECT: Review of Analytical Data, Tier 3

Attached are comments resulting from ESAT Region 9 review of the following analytical data:

Site:	Omega Chem OU2
Site Account No.:	09 BC LA02
CERCLIS ID No.:	CAD042245001
Case No.:	33625
SDG No.:	MY1LN4
Laboratory:	Ceimic Corporation (CEIMIC)
Analysis:	CLP Dissolved Metals By ICP-AES
Samples:	9 Groundwater Samples (see Case Summary)
Collection Date:	December 7, 8, and 9, 2004
Reviewer:	Stan Kott, ESAT/Laboratory Data Consultants

This report has been reviewed by the EPA TOM for the ESAT contract, whose signature appears above.

If there are any questions, please contact Rose Fong (QA Program/EPA) at (415) 972-3812.

Attachment

cc: Jennie Han-Liu, CLP PO USEPA Region 1
Steve Remaley, CLP PO USEPA Region 9

CLP PO: [X] FYI [ ] Action

SAMPLING ISSUES: [ ] Yes [X] No

Data Validation Report

Case No.: 33625
SDG No.: MY1LN4
Site: Omega Chem OU2
Laboratory: Ceimic Corporation (CEIMIC)
Reviewer: Stan Kott, ESAT/LDC
Date: June 30, 2006

I. CASE SUMMARY

Sample Information

Samples:	MY1LN4, MY1LN6 through MY1LN9, and MY1LP0 through MY1LP3
Concentration and Matrix:	Low Concentration Groundwater
Analysis:	CLP Dissolved Metals By ICP-AES
SOW:	ILM05.3 and Modification Reference Number AES060304.0
Collection Date:	December 7, 8, and 9, 2004
Sample Receipt Date:	December 8, 9, and 11, 2004
Preparation Date:	December 15, 2004
Analysis Date:	December 16, 2004

Field QC

Field Blanks (FB):	Not Provided
Equipment Blanks (EB):	Not Provided
Background Samples (BG):	Not Provided
Field Duplicates (D1):	Not Provided

Laboratory QC

Method Blanks & Associated Samples:	Preparation Blank-Water (PBW) and samples listed above
Matrix Spike:	MY1LN4S
Duplicates:	MY1LN4D
ICP Serial Dilution:	MY1LN4L

Analysis: Select CLP Dissolved Metals By ICP-AES

Analyte	Sample Preparation and Digestion Date	Analysis Date
ICP-AES Metals	December 15, 2004	December 16, 2004
Percent Solids	Not Applicable	Not Applicable

CLP PO Action

None.

Sampling Issues

None.

Additional Comments

Note that Ceimic Corporation laboratory is no longer in operation.

The samples in this SDG were analyzed for select metals (aluminum, calcium, iron, magnesium, potassium, and sodium) plus boron and silicon by ICP-AES under Modified Analysis Request (MAR), Modification Reference Number AES060304.0.

The laboratory indicates in the SDG Narrative that the original 100 µg/L contract required quantitation limit (CRQL) for silicon was increased to 200 µg/L after the Modified Analysis contract was awarded to the laboratory. No adverse effect on data quality is expected.

All method requirements specified in the EPA Contract Laboratory Program (CLP) Inorganic Statement of Work (SOW), except as noted, have been met.

Analytical results are listed in Table 1A with qualifications. Definitions of data qualifiers used in Table 1A are listed in Table 1B.

This report was prepared in accordance with the following documents:

- Region 9 Standard Operating Procedure 906, *Guidelines for Data Review of Contract Laboratory Program Analytical Services (CLPAS) Inorganic Data Packages*;
- *Request for Quote for Modified Analysis* (SOW flexibility clause), Tracking Number: 1103.0, Modification Reference Number: AES060304.0, June 9, 2004;
- *USEPA Contract Laboratory Program Statement of Work For Inorganic Analysis Multi-Media, Multi-Concentration* ILM05.3, March 2004; and
- *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review*, October 2004.

II. VALIDATION SUMMARY

The data were evaluated based on the following parameters:

	Parameter	Acceptable	Comment
1.	Data Completeness	Yes	
2.	Sample Preservation and Holding Times	Yes	
3.	Calibration	Yes	
	a. Initial		
	b. Initial and Continuing Calibration Verification		
	c. CRQL Check Standard (CRI)		
4.	Blanks	Yes	
5.	ICP Interference Check Sample (ICS)	Yes	
6.	Laboratory Control Sample (LCS)	Yes	
7.	Duplicate Sample Analysis	Yes	
8.	Matrix Spike Sample Analysis	Yes	
9.	ICP Serial Dilution Analysis	Yes	
10.	ICP-MS Internal Standards	N/A	
11.	Field Duplicate Sample Analysis	Yes	
12.	Sample Quantitation	Yes	A
13.	Overall Assessment	Yes	

N/A = Not Applicable

III. VALIDITY AND COMMENTS

A. Results above the MDL but below the CRQL (denoted with an "L" qualifier) are estimated and flagged "J" in Table 1A.

Results above the MDL but below the CRQL are considered qualitatively acceptable but quantitatively unreliable due to uncertainties in the analytical precision near the limit of quantitation.

ANALYTICAL RESULTS
Table 1A

Case No. : 33625 SDG No. : MY1LN4
Site : OMEGA CHEM OU2
Lab : CEIMIC CORPORATION (CEIMIC)
Reviewer : Stan Kott, ESAT/LDC
Date : June 30, 2006

QUALIFIED DATA
Concentration in ug/L

Analysis Type : Low Concentration Groundwater Samples For Select Dissolved Metals By ICP-AES

Station Location :	24			26			27			28			29			30			31		
Sample ID :	MY1LN4			MY1LN6			MY1LN7			MY1LN8			MY1LN9			MY1LP0			MY1LP1		
Collection Date :	12/7/2004			12/7/2004			12/8/2004			12/8/2004			12/8/2004			12/9/2004			12/9/2004		
PARAMETER	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**
ALUMINUM	200U			200U			55.4L	J	A	45.7L	J	A	200U			200U			200U		
BORON	408L	J	A	627L	J	A	425L	J	A	579L	J	A	436L	J	A	522L	J	A	398L	J	A
CALCIUM	225000			260000			147000			137000			193000			227000			226000		
IRON	58.1L	J	A	100U			100U			100U			100U			100U			100U		
MAGNESIUM	51600			73600			38200			42700			54900			54900			58700		
POTASSIUM	6480			5260			8140			4220L	J	A	4270L	J	A	6120			6180		
SILICON	12800			16700			13600			18100			19400			14700			15600		
SODIUM	125000			180000			121000			174000			110000			135000			111000		

Station Location :	32			33			MDL			CRQL											
Sample ID :	MY1LP2			MY1LP3																	
Collection Date :	12/9/2004			12/9/2004																	
PARAMETER	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**
ALUMINUM	200U			51.2L	J	A	44.2			200											
BORON	437L	J	A	139L	J	A	52.5			1000											
CALCIUM	231000			140000			77.4			5000											
IRON	1570			100U			32.2			100											
MAGNESIUM	58300			38300			28.2			5000											
POTASSIUM	5990			5010			54.8			5000											
SILICON	14800			10800			67.3			200											
SODIUM	123000			61500			60.9			5000											

Val - Validity. Refer to Data Qualifiers in Table 1B.
Com - Comments. Refer to the Corresponding Section in the Narrative for each letter.
MDL - Method Detection Limit, N/A - Not Applicable, NA - Not Analyzed

D1, D2, etc. - Field Duplicate Pairs
FB - Field Blank, EB - Equipment Blank, TB - Trip Blank, BG - Background Sample
CRQL - Contract Required Quantitation Limit

TABLE 1B

DATA QUALIFIER DEFINITIONS FOR INORGANIC DATA REVIEW

The definitions of the following qualifiers are prepared in accordance with the document *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review*, October 2004.

U	The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
J	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
R	The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.
UJ	The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.